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(S) NATIONAL RECONNAISSANCE OFFICE
WASHINGTON, D.C.

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AND STAFF

September 25, 1967

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NRO & DIA REVIEWS COMPLETED

MEMORANDUM FOR MR. NITZE
MR. HELMS
DR. HORNIG

SUBJECT: Scenarios for Utilization of the TAGBOARD Drone

As requested at the ExCom meeting of August 23, 1967, several scenarios in which the TAGBOARD would be used have been considered. Basic to this consideration are two assumptions which must be viewed as having a high degree of validity if drone operations are to be justified. These are: (1) that there are many situations and denied areas of the world in which there may be a substantial diminution in the political liability incurred by the United States by the use of drones rather than manned aircraft for overflight, and (2) that both interceptor and surface-to-air missile defenses will continue to improve in denied areas of interest to the United States. Such improvement would in most instances have to result from the Soviets making available their latest equipment to other nations on a selective basis. The improvements may be both quantitative (e.g., large numbers of SA-2s as in North Vietnam) and qualitative (e.g., the provision of late-model fighter aircraft such as MIG-21s in Cuba at the time of the missile crisis and SU-7s recently in Egypt). It seems clear that it still is the Soviet intention to make available such advanced aircraft and missile defenses (as well as offensive weapons in some cases) to nations which can best challenge U. S. interests and policies in many parts of the world.

In any consideration of scenarios for drones, it should be borne in mind that no truly covert U. S. manned overflight of denied areas has been approved for many years. The areas

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being overflown by U. S. manned reconnaissance aircraft in Southeast Asia (including the OXCART) are either in or peripherally involved in a theatre of U. S. military operations and it primarily is the relative invulnerability of the U-2 and OXCART in the areas where they are used, rather than the covert nature of the operations, which make these aircraft useful. The other advantage of high-altitude reconnaissance aircraft is their relative unobtrusiveness; the nation overflown, which may not be able to counter them, can easily ignore their presence, which is often the best political expedient. Drones share all these advantages along with manned aircraft, and they have the additional advantage that, in the event the reconnaissance vehicle is brought down in denied territory, the U. S. is spared the possible political embarrassment of a U. S. pilot,who not only can serve as living evidence of deliberate overflight (the wreckage of drones can do the same thing although far less dramatically), but becomes a pawn in negotiations between nations and perhaps an international news figure as well.

There is no question that for most operations, drones are less efficient than manned reconnaissance aircraft, just as, for many missions, high-altitude reconnaissance aircraft may be less efficient than low altitude reconnaissance vehicles. Efficiency alone however cannot be the sole determining factor in planning the U. S. reconnaissance program; the modes of operation of our systems must be such that, under the military and political constraints which exist and can be foreseen, the systems will be useful and will be used. It is on this latter score that our experience indicates that drones are an important element of the U. S. reconnaissance program; in many cases, the political acceptability of drone overflights of denied territory will be appreciably greater than that of U. S. manned aircraft.

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useful to restate why there is continuing requirement for overflight by manned aircraft and drones. There are two

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principal reasons for this requirement, as follows: (1) in certain areas of the world such as South China, over long periods of the year cloud cover is encountered so great a percentage of the time that timely coverage of high priority targets by satellite reconnaissance cannot be assured, and (2) in rapidly changing tactical or crisis situations satellite reconnaissance can not provide a high enough rate of coverage and data return to meet the need, even in the absence of cloud cover restrictions. Although, in principle, a large number of satellites having one to two day recovery bucket return times could be used, such operations would be exorbitantly expensive with present systems.

Listed below are principal factors which bear upon the use of TAGBOARD drones in several different scenarios:

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[redacted]

were 9 successful missions. The recent loss of a U-2, presumably to a surface-to-air missile in China, may again cause one of the periodic declines in IDEALIST/TACKLE activity.

25X1 Experience to date with the Model 147H drones over China has been less than satisfactory, although there is some evidence that some failures of drones to return and even the loss of some

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drones to Chinese Communist interceptors is traceable in part to mechanical malfunctions which are related to initial deployment problems of the 147H. There is, however, at least some reason to conclude that the Chinese Communists are having a greater degree of success in intercepting Model 147H drones at high altitudes than our previous assessment of their interceptor capabilities would have led us to predict. If the high loss rate of Model 147H drones continues and if U-2 operations are curtailed, replacement of these missions by TAGBOARD drone operations would be necessary, particularly for deep penetrations.

North Korea

There is currently under consideration by COMIREX a DIA request that the USIB be asked to consider the deficiencies in current reconnaissance coverage of North Korea in view of the poor coverage of the high priority targets in this area by reconnaissance and the complete lack of any U-2 (IDEALIST/TACKLE) missions since July 31, 1965. The current stated need for U-2 coverage is one mission per month CINCPAC, in a recent message to the JCS, highlighted the increase in activity by North Korean military forces and stated the need to increase our intelligence collection effor Consideration is being given to the use of the OXCART aircraf presently deployed in BLACK SHIELD or to the use of subsonic drones; however, political concerns about such actions have been raised by the State Department member of COMIREX. Although at the present time it may not be necessary to use the high performance and low-vulnerability characteristics of the TAGBOARD for a drone operation, it would appear that if improved Soviet-supplied air defenses, both interceptor and surface-to-air missiles, were moved into this area during the next two years, utilization of either the OXCART/SR-71 or the TAGBOARD would become necessary.

Cuba

At the present time, Cuban overflight is being conducted by SAC U-2s under the In the event that the Cubans undertook to stop this operation either by the use of surface-to-air missiles or improved interceptor aircraft,

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either the OXCART/SR-71 or the TAGBOARD would have to be employed. There is currently a contingency plan [redacted] for utilization of the OXCART over Cuba; under the OXCART phase-out plan this responsibility would be assumed by the SR-71 December 1, 1967. At the present time, it appears more likely that the OXCART/SR-71 would probably be used if Cuban overflight by the U-2 were denied, but depending upon the actual political situations and the defensive environments which might be encountered in the future, the TAGBOARD would provide a valuable last resort short of a situation in which the U. S. would be forced to such alternatives as low altitude reconnaissance.

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Other Areas

The potential utilization of TAGBOARD drones in other areas of the world not currently programmed for aircraft or drone flight operations is more difficult to predict. However, during the recent Middle East conflict, a U-2 was deployed to [redacted] for possible use. Subsequent to the conflict, during the period of reconstitution of the military forces in the area, the NRO received a request (subsequently cancelled) to accomplish appropriate field surveys and planning for utilization of the OXCART in the Middle East. In this case the conflict ended quickly, satellite coverage was virtually unrestricted by cloud cover and the timing of events was extremely fortuitous with respect to both on-orbit and data return schedules of our reconnaissance satellites. In future instances both in the Middle East, and especially in areas where the weather is not so consistently good, we would expect to go through with the aircraft or drone overflights that were only prepared for in this case. In all such cases the TAGBOARD drones would provide an important capability for meeting political situations where manned overflight might pose problems.

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A study of the possible intelligence requirements which could be fulfilled by TAGBOARD drones has been made by the DIA and is attached. This study is not limited to consideration of peacetime overflight of denied areas but includes assessment of possible wartime roles for the TAGBOARD.

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With respect to the future system developments which might influence a decision for or against the use of TAGBOARD in any particular future situation, there is first a continuing improvement program for the 147H drone. This will result in replacement of the 147H by the 147T which will offer another three to five thousand feet of altitude about next Spring. In 1969 an even higher altitude subsonic drone (Model 154 - 25X1A 25X1A should become operational. Wherever the defensive environment permits the use of these subsonic drones, they should and will be used because of cost factors. (However, it should be noted that current cost estimates for the advanced

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complete recovery of the vehicle and equipment is the normal operational mode whereas only the high-value equipment is recovered after a TAGBOARD mission.)

The improved U-2R which is coming into the inventory during the next year will be capable of about 5000 feet higher altitude than the current U-2C; this will improve survival against advanced interceptors. However, it should be recognized that as the subsonic drone and aircraft altitude capabilities improve so will the capabilities of the new generation of Soviet interceptor aircraft and depending upon the extent to which they choose to make these aircraft available to other nations, the relative possibility of a need for TAGBOARD in some areas probably will remain unchanged.

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solve the latter problem, was disapproved by the ExCom late last year. Therefore, it appears that for the next two or three years at least we should anticipate little change in the needs for aircraft and drone overflight in the National Reconnaissance Program.

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Alexander H. Flax

Attachment
DIA study on TAG,
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TOP SECRET [redacted]

DEFENSE INTELLIGENCE AGENCY
WASHINGTON, D. C. 20301

21 SEP 1967

SUBJECT: TAGBOARD Drone Utilization

TO: Deputy Director for Reconnaissance, J-3, JCS

1. Reference your memorandum [redacted] dated 13 September 1967, subject as above, which requested a statement as to the intelligence requirements that could be satisfied through the use of the TAGBOARD drone.

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2. Considering the intelligence and operational parameters provided (i.e., priority of target, desired frequency of coverage, target defenses, the probable high survivability of this system, and the high cost and limited availability of these drones) and considering the capabilities of other reconnaissance systems, it has been determined that TAGBOARD should be employed on a supplemental basis - it should serve as an adjunct to existing reconnaissance collection resources. Consequently, only those high priority requirements which cannot be fully satisfied by other reconnaissance assets - because of the existing situation, required response time, or operational or technical limitations - should be applied to the TAGBOARD system for fulfillment.

3. Based on the above considerations, a determination was made as to the type of targets, situations and requirements where this vehicle could most profitably be employed. This information, reflected in the enclosure, represents general guidance on the utilization of the TAGBOARD system - in a supplementary role - for satisfying intelligence requirements under varying situations. The numbers and types of targets, and desired frequency of coverage, are always subject to change in the light of shifting situations or other factors that bear on intelligence requirements. Unforeseen developments might cause a need for increased coverage by [redacted] In addition, the periodicity and coverage sampling size required for the various target categories against which TAGBOARD might be employed requires detailed study for the determination of more precise requirements for application to this system.

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4. In summary, the employment of TAGBOARD must be based on a continuing review of intelligence needs and the degree of satisfaction by other reconnaissance systems.

FOR THE DIRECTOR:

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Colonel, USAF
Chief, Special Activities Office

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